

REMARKS

Claims 1 and 3-20 are pending in this Application. Applicants have cancelled claim 2 without prejudice or disclaimer, and amended claims 1, 3, 4, 6, 8-20 to define the claimed invention more particularly. No new matter is added.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicants respectfully request that since the Examiner made an error in the Office Action, any subsequent Office Action that may be issued in response to this Amendment be made non-final.

That is, in rejecting claim 6, and similarly claims 7, 16, and 17, the Examiner bases his rejection upon Pearlstein and Honjo (see Office Action at page 18, lines 1-2). Then, the Examiner incorrectly relies upon, and recites features and sections from, Miyasaka (see Office Action at page 19, lines 5, 10, and 11), although Miyasaka was not cited in the rejection.

Claims 1-20 stand rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter. Claims 9-10 and 12-20 stand rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended the claims to address the Examiner's concerns.

Claims 1-2, 9, 12, and 19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Pearlstein (US Patent No. 6,594,311). Claims 3 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pearlstein. Claims 4-5, 8, 11, 14-15, 18, and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pearlstein in view of Miyasaka et al. (US Patent No. 5,991,503, and hereinafter "Miyasaka"). Claims 6-7 and 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pearlstein in view of Honjo (US 2001/0033737).

Applicants respectfully traverse these rejections in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as defined by exemplary claim 1) is directed to an image

processing apparatus for obtaining processed compressed moving image data by carrying out image enhancement processing on compressed moving image data.

The image processing apparatus includes division means for dividing the compressed moving image data into a target part to be corrected and a non-target part not to be corrected, decoding means for obtaining decoded data by decoding the target part, correction means for obtaining corrected decoded data by carrying out the image enhancement processing on the decoded data, encoding means for encoding the corrected decoded data, and combination means for obtaining the processed compressed moving image data by combining the target part that has been encoded with the non-target part. The image enhancement processing includes at least one of gradation correction, white balance correction, density correction, and sharpness processing.

In a conventional image processing apparatus, as described in the Background of the present Application, a video signal is first subjected to A/D conversion to generate moving image data. A brightness histogram is then calculated regarding the moving image data, and a look-up table based on the histogram is generated and used for gradation correction (e.g., see Application at page 1, lines 14-20).

In such conventional apparatus, a server sends the image data to the receiver mobile phone, or temporarily stores the image data for future downloading. If the image enhancement processing is not carried out fast in the server, a user feels stressful. Therefore, the service is not improved but degraded. Furthermore, if the time necessary for the image enhancement processing is long, the server needs to have a large-capacity storage device for storing the image data to be processed. In this manner, the server becomes more costly (e.g., see Application at page 3, lines 10-18).

In the claimed invention, however, the image enhancement processing includes at least one of gradation correction, white balance correction, density correction, and sharpness processing (e.g., see Application at page 3, lines 6-8).

II. 35 U.S.C. 101 REJECTION

In rejecting claim 1-11, the Examiner alleges that the claims are directed to non-statutory subject matter.

Applicants respectfully submit that these claims clearly describe an image processing apparatus. Applicants are not aware of any case law supporting the Examiner's final

statement that the means-plus-function language invoked by software/program is non-statutory, and request the Examiner to provide a citation.

Stated slightly differently, there is no precedence in case law that means-plus-function constructions invoked by 35 USC §112, sixth paragraph, contradicts the plain meaning of claim language.

That is, these claims are plainly directed to an apparatus, one of the four categories specifically identified in 35 USC §101. There is no claim construction known to the applicants whereby the examiner is entitled to simply re-define the claim language, as has occurred in this rejection for these claims.

In rejecting claim 12-20, the Examiner alleges that the claims are non-statutory since the claims include a method-step language and “program.”

Applicants have amended the claims in a manner believed responsive to the Examiner’s rejection.

In view of the above, Applicants respectfully request that the examiner reconsider and withdraw these rejections.

III. 35 U.S.C. 112, SECOND PARAGRAPH REJECTION

In rejecting claims 9-10 and 19, the Examiner alleges that the claims are indefinite for failing to particularly point out the invention.

Applicants amended claim 9, and similarly claims 10 and 19, to recite, “*parameter adjustment means for obtaining an adjusted parameter for each of the decoded frames by adjusting the correction parameter thereof, with use of the correction parameter for the decoded frame or frames that at least one of precedes and follows the decoded frame corresponding to the correction parameter that is going to be adjusted*,” (emphasis added by Applicants) to define the claimed invention more particularly.

Furthermore, Applicants amended claim 9, and similarly claim 19, to recite, “*correction parameter calculation means for calculating a correction parameter for each of the decoded frames by using data of a corresponding decoded frame*,” (emphasis added by Applicants) to define the claimed invention more particularly.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

IV. THE PRIOR ART REJECTIONS

A. The 102(b) Pearlstein reference rejection

The Examiner alleges that Pearlstein anticipates claims 1-2, 9, 12, and 19. Applicants respectfully submit, however, that the alleged reference does not teach or suggest each and every feature of the claimed invention.

That is, Pearlstein does not teach or suggest, “*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*,” as recited in claim 1, and similarly recited in claims 3, 4, 6, 8, 9, 11-14, 16, 18-20.

The Examiner alleges that Pearlstein teaches the claimed image processing apparatus. Specifically, the Examiner attempts to analogize the function of the unencoded data combining circuit 458 of Pearlstein to the claimed image enhancement processing.

Pearlstein, however, teaches that the alleged unencoded data combining circuit 458 merely combines the uncompressed local image data with the unencoded video data output by the decoder 456 (col. 7, lines 47-64; 458 in Fig. 5). This is different from, and fails to teach or suggest, the claim invention that recites, “*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*,” as recited in claims 1, 3, 4, 6, 8, 9, 11-14, 16, and 18-20.

Indeed, Pearlstein fails to teach or suggest the claimed structure since Pearlstein addresses a different problem.

Therefore, Applicants respectfully submit that Pearlstein fails to teach or suggest each element of Applicants’ claimed invention. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

B. The 103(a) Pearlstein reference rejection

In rejecting claims 3 and 13, the Examiner alleges that Pearlstein teaches the claimed invention. Applicants respectfully submit, however, that the alleged reference would not teach or suggest each and every feature of the claimed invention.

That is, as set forth above in section A, Pearlstein fails to teach or suggest, “*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*,” as recited in claims 3 and 13.

Therefore, Applicants respectfully submit that Pearlstein fails to teach or suggest each

element of Applicants' claimed invention. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

C. The 103(a) Pearlstein and Miyasaka rejection

In rejecting claims 4-5, 8, 11, 14-15, 18, and 20, the Examiner alleges that one of ordinary skill in the art would have combined Pearlstein with Miyasaka to render obvious the claimed invention. Applicants respectfully submit, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Pearlstein and Miyasaka do not teach or suggest, "*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*," as recited in claim 4, and similarly recited in claims 8, 11, 14, 18, and 20.

Indeed, as set forth above in section A, Pearlstein fails to teach or suggest this feature of the claimed invention.

Moreover, Applicants submit that Miyasaka fails to make up the deficiencies of Pearlstein.

Indeed, Miyasaka discloses a method for decoding data of intra-frame encoded data (col. 4, lines 24-35). Miyasaka, however, is silent about and fails to teach or suggest, "*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*," as recited in claim 4, and similarly recited in claims 8, 11, 14, 18, and 20.

Indeed, the Examiner does not even allege that Miyasaka teaches or suggests this feature. The Examiner merely relies on Miyasaka for allegedly teaching division means for dividing compressed moving image data into intra frames and inter frames (see Office Action at page 13, lines 11-16).

Since Miyasaka does not overcome the deficiencies of Pearlstein, the combination of references fails to render the rejected claims obvious.

Moreover, Applicants submit that one with ordinary skill in the art would not have combined Pearlstein with the teachings of Miyasaka.

That is, adding the teachings of Miyasaka to the device of Pearlstein would change

the principle of operation of Pearlstein, since the references teach two distinct systems that have different structures, are for different purposes, and perform in different environments.

Indeed, the Examiner attempts to pick and choose different elements and functions from the device of Miyasaka to enable the non analogous device of Pearlstein to have a structure similar to the claimed image processing apparatus. Therefore, Applicants respectfully submit that the Examiner is improperly using the claimed invention as a roadmap and that one of ordinary skill in the art would not have combined the references as alleged by the Examiner.

Indeed, direct substitution of the first and second set of frames of Pearlstein with intra and inter frames of Miyasaka, as alleged by the Examiner, would not result in reasonable expectation of success. Thus, the Examiner has not established a *prima facie* case of obviousness. Therefore, one with ordinary skill in the art would not have combined the references, as alleged by the Examiner.

Therefore, Applicants respectfully submit that one with ordinary skill in the art would not have combined Pearlstein with the teachings of Miyasaka, and even if combined, the alleged combination does not teach or suggest (or render obvious) each and every feature of the claimed invention. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

D. The 103(a) Pearlstein and Honjo rejection

In rejecting claims 6-7 and 16-17, the Examiner alleges that one of ordinary skill in the art would have combined Pearlstein with Honjo to render obvious the claimed invention. Applicants respectfully submit, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

As an initial matter, however, Applicants would like to note an error in the Office Action, and the Examiner's rejection is unclear.

That is, in rejecting claim 6, and similarly claims 7, 16, and 17, the Examiner bases his rejection upon Pearlstein and Honjo (see Office Action at page 18, lines 1-2). Then, the Examiner incorrectly relies upon, and recites features and sections from, Miyasaka (see Office Action at page 19, lines 5, 10, and 11), although Miyasaka was not cited in the rejection. Applicants request appropriate correction.

Accordingly, in view of these errors, Applicants respectfully request that any subsequent Office Action that may be issued in response to this Amendment be made non-final.

Secondly, Applicants submit that Pearlstein and Honjo do not teach or suggest, “*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*,” as recited in claims 6 and 16.

Indeed, as set forth above in section A, Pearlstein fails to teach or suggest this feature of the claimed invention.

Moreover, Applicants submit that Honjo fails to make up the deficiencies of Pearlstein.

Indeed, Honjo discloses a method for decoding I frames and P frames (paragraph [0066]). Honjo, however, is silent about and fails to teach or suggest, “*the image enhancement processing comprises at least one of gradation correction, white balance correction, density correction, and sharpness processing*,” as recited in claims 6 and 16.

Indeed, the Examiner does not even allege that Honjo teaches or suggests this feature. The Examiner merely relies on Honjo for allegedly teaching division means for dividing compressed moving image data into intra I, B, and P frames (see Office Action at page 19, lines 1-4).

Since Honjo does not overcome the deficiencies of Pearlstein, the combination of references fails to render the rejected claims obvious.

Moreover, Applicants submit that one with ordinary skill in the art would not have combined Pearlstein with the teachings of Honjo.

That is, adding the teachings of Honjo to the device of Pearlstein would change the principle of operation of Pearlstein, since the references teach two distinct systems that have different structures, are for different purposes, and perform in different environments.

Indeed, the Examiner attempts to pick and choose different elements and functions from the device of Honjo to enable the non analogous device of Pearlstein to have a structure similar to the claimed image processing apparatus. Therefore, Applicants respectfully submit that the Examiner is improperly using the claimed invention as a roadmap and that one of ordinary skill in the art would not have combined the references as alleged by the Examiner.

Indeed, direct substitution of the first and second set of frames of Pearlstein with I and P frames of Miyasaka, as alleged by the Examiner, would not result in reasonable expectation

of success. Thus, the Examiner has not established a *prima facie* case of obviousness. Therefore, one with ordinary skill in the art would not have combined the references, as alleged by the Examiner.

Therefore, Applicants respectfully submit that one with ordinary skill in the art would not have combined Pearlstein with the teachings of Honjo, and even if combined, the alleged combination does not teach or suggest (or render obvious) each and every feature of the claimed invention. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

V. FORMAL MATTERS AND CONCLUSION

Applicants have amended the title in a manner believed responsive to the Examiner's objection.

The Examiner alleges that claims 1, 3, and 4 are substantially duplicate claims (see Office Action at page 2, section 4. Applicants respectfully submit that claims 1, 3, and 4 recite different limitations.

That is, claim 3 recites, "*An image processing apparatus for obtaining processed compressed moving image data by carrying out image enhancement processing on compressed moving image data obtained according to a compression method using a first frame as a reference frame.*" (emphasis added by Applicants) which was not part of claim limitations of claims 3 and 4.

Similarly, claim 4 recites, "*An image processing apparatus for obtaining processed compressed moving image data by carrying out image enhancement processing on compressed moving image data comprising intra frames and inter frames, the image processing apparatus comprising: division means for dividing the compressed moving image data into the intra frames and the inter frames.*" (emphasis added by Applicants) which was not part of claim limitations of claims 1 and 3.

Indeed, contrary to his allegation that claims 1, 3, and 4 are substantially duplicate claims, the Examiner has applied different references and distinct rejections (i.e., 35 U.S.C. 102(e) in rejecting claim 1, 35 U.S.C. 103(a) in rejecting claim 3, and 35 U.S.C. 103(a) when combined with a secondary reference in rejecting claim 1) in rejection each of these claims (see Office Action at page 8, section 17; page 11, section 19; page 12, section 20). Therefore, claims 1, 3, and 4 are not duplicate claims.

With respect to claims 5 and 7, the Examiner alleges that “*decoding of intra frames*” is a one-to-one correspondence to “*decoding the intra block*” (see Office Action at page 3, sections ii and iii).

Indeed, the Examiner appears to have confused the intra blocks with intra frames of claim 4.

Indeed, claim 5, and similarly claim 7, recites, “block division means for dividing the inter frames into intra blocks and inter blocks” (emphasis added by Applicants). Therefore, the block division means of claims 5 and 7 divides the inter frames into intra blocks, and then the decoding means decodes the intra blocks. In claim 4, however, the decoding means decodes intra frames, not inter frames as alleged by the Examiner.

Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

In view of the foregoing, Applicants submit that claims 1 and 3-20, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney’s Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 12/18/08

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